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<u>L1</u>	tea or mushroom	56593	<u>L1</u>

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File: DWPI

Jun 23, 1989

DERWENT-ACC-NO: 1989-224484

DERWENT-WEEK: 198931

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TITLE: Prod'n. of docosa:hexa:enoyl di:acyl glycerol - by extracting phosphatidyl choline from fish egg, reverse phase column chromatography and hydrolysis

## PATENT-ASSIGNEE:

ASSIGNEE

CODE

NIPPON OILS &amp; FATS CO LTD

NIOF

RIKAGAKU KENKYUSHO CO LTD

RIKA

PRIORITY-DATA: 1987JP-0318616 (December 18, 1987)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 01160988 A	June 23, 1989		009	
JP 95062020 B2	July 5, 1995		008	C07F009/10

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP01160988A	December 18, 1987	1987JP-0318616	
JP95062020B2	December 18, 1987	1987JP-0318616	
JP95062020B2		JP <u>1160988</u>	Based on

INT-CL (IPC): C07F 9/10

ABSTRACTED-PUB-NO: JP01160988A

## BASIC-ABSTRACT:

Phosphatidylcholine obtd. from egg of aquatic animal is subjected to reverse-phase column chromatography and hydrolysed by phospholipase C, to produce docosahexaenoyl diacylglycerol. Docosahexaenic acid is bonded at Sn-2 position.

Egg is pref. that of *Salmo gairdneri*, carp, young yellowtail, or eel. Phosphatidylcholine is extracted from the egg by adding e.g. H<sub>2</sub>O and acetone, then homogenising, and extracting with solvent to obtain total lipids. The lipids are subjected to silica gel column chromatography to obtain phosphatidylcholine. Phosphatidylcholine is sep'd. by HPLC using a reverse phase column, then fraction having activity of docosahexaenic acid is treated with phospholipase C. Phosphatidylcholine is hydrolysed to give the desired diacylglycerol. To detect the stereospecificity of the resultant, the resultant is subjected to silica gel TLC, using chloroform/acetone/MeOH (90/9/1, vol/vol/vol) as a developing solvent, monoglyceride as a standard, which are coloured by iodine stream. For analysing docosahexaenic acid, FAB-MS (Pos). can be used.

USE/ADVANTAGE - Diacylglycerol with docosahexaenic acid at Sn-2 position strongly affects differentiating and inducing undifferentiated cell to normal cell. Against cancerous cells, it has anticancer effect. Prod. is obtd. in high yield, and Stereospecificity is maintained.

CHOSEN-DRAWING: Dwg.0/1

TITLE-TERMS: PRODUCE DOCOSA HEXA DI ACYL GLYCEROL EXTRACT PHOSPHATIDYL CHOLINE FISH  
EGG REVERSE PHASE COLUMN CHROMATOGRAPHY HYDROLYSIS

DERWENT-CLASS: B05 D16

CPI-CODES: B10-E04D; B11-C08E3; B12-G07; D05-A02C; D05-H13;

CHEMICAL-CODES:

Chemical Indexing M2 \*01\*

Fragmentation Code

H7 H723 J0 J013 J2 J273 M225 M226 M231 M262

M283 M313 M321 M332 M343 M383 M391 M416 M720 M903

M904 N134 N242 N362 P633 Q233

Markush Compounds

198931-21401-P

Registry Numbers

1704X 1724X 1711X 1714X 89290

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1989-099797